SECONDARY SCHOOL SIZE AND INTERNAL ORGANIZATION

A discussion paper prepared by
the Schools Facilities Branch
British Columbia Ministry of Education
Victoria, B.C.
May 1985

DISCUSSION PAPER

SECONDARY SCHOOL SIZE AND INTERNAL ORGANIZATION

Introduction

In the February, 1985, issue of the Phi Delta Kappan, Torston Husen, internationally-respected professor in the Institute of International Education, University of Stockholm, expresses some challenging views in an article titled "The School in the Achievement-Oriented Society : Crisis and Reform". In the course of expounding his theme that schools in all modern industrial societies are suffering from the combined affliction of meritocracy and bureaucracy, he revisits an old issue : school size and internal organization. The following statements from Husen's article are like fresh strikes at a warning bell we have all heard before, whose sound is now intensified. Listen :

> "All industrial societies have shown a strong tendency to increase the size of individual schools. This applies in particular to secondary schools with their more diversified curricula and their need for more specialized training for their staff members and for more specialized facilities ...."...."The sheer size of these schools easily leads to the formalization of social contacts and to the introduction of bureaucratic controls."...."But in a large organization - one in which individuals do not know everyone else - an elaborate system of rules and formal proceedings replace the informal, social means of control ...." ...."Large schools with formally structured social contacts tend to fragment students' contact with adults in the schools. Instruction becomes increasingly divided among teachers with specialized competencies" ...."Different aspects of individual children are parceled out among specialists." ...."Large size, bureaucratization, and fragmentation run counter to attempts to educate 'individuals'. At the core of any genuine effort to provide education is the interaction between teachers and pupil, between an adult and a young person."

The above statements are illustrative of the main thrust of Husen's analysis. In his prescription for reform, he makes five concrete proposals, the first two of which are particularly pertinent to the topic of this discussion paper. "First, we must take steps to make schools smaller. This may appear to be a utopian proposal, coming as it does after a period of school consolidation in most industrial countries. Certainly, in countries in which the comprehensive high school is the rule, schools must be of a certain size in order to offer the variety of programs and teachers that secondary education requires. But the drawbacks can be reduced to some degree by establishing smaller units within the larger units." ... "Second, we must redefine the role of the teacher. This redefinition will apply mainly to secondary schools. We must strike a proper balance between more continuous contact between students and teachers on the one hand and the need for competent teaching of more highly specialized subjects on the other." The concluding statement to Husen's article is both provocative and

unequivocal: "Any attempt to come to grips with today's troubled schools must consider how to establish more self-directed schools with closer ties to parents and to the surrounding community."

The issues to which Husen draws attention are of concern to the Facilities Branch because several recent proposals from school districts involve increasing the size of already large secondary schools - from over 1,000 students, to over 1,500. The recently revised School Facilities Manual shows space standards for elementary schools up to 600 students, and for secondary schools up to 1,500. But no advice to school districts warns about the drawbacks to excessively large schools and no advice is offered to districts with already oversized schools on how to use modern forms of internal organization to mitigate the adverse effects of excessive size.

This discussion paper presents research evidence on the effects of secondary school size and internal organization, and leads up to the following policy questions : Should the Ministry set a limit to the size of schools it will share in building? What should that size limit be? Should planners proposing schools larger than a desirable size but within the maximum-size limit be required to build into their proposals schemes designed to promote "small school conditions" through sub-divided internal organization?

The Problem of Size of Schools

Growth in size of schools and the relationship to breadth of curriculum.

In the late 1950's, Conant focused national attention in the United States on the weaknesses of the very small high school with the publication of The American High School Today (1959). Following the launching of Sputnik in 1957, there quickly arose, in the atmosphere of the cold war, great concern about the quality of education. In his book, Conant, a well-known and highly respected scientist, pleaded for larger high schools, stating that no high school should have less than 100 students in its graduating class (p. 77). His concern was twofold: first, with the need for a broad and varied "comprehensive" curriculum as more and more students aspired to high school graduation; and second, with the need for specialist teachers who could concentrate on teaching their specialties. Most teachers on the staffs of small schools were required to teach subjects other than their specialties, and Conant claimed that this had an adverse effect on the overall quality of teaching.

Conant's views speeded the movement, already becoming evident, to fewer and larger school districts--from 94,926 districts in 1948 to 31,319 in 1964 (Plath, 1965, p.3). Fewer and larger school districts had the effect of reducing the number of small high schools and increasing the number of large ones. For example, between 1952 and 1959 the median U.S. high school enrolment grew from 175 to 278 as the number of school districts was reduced 30% (Plath, p. 2). Even more significant was the fact that by 1961, 22% of the nation's secondary school enrolment was in schools enrolling over 1500 students (Plath, p. 3).

As secondary school enrolment reached towards its peak in North America in the early 1970's as a result of both rising educational aspirations and the effect of the post-war baby boom, so did the construction of large schools. By the 1970's, also, construction of large schools was reaching towards a peak in Britain as the swing to comprehensive schools away from separate grammar, secondary modern, and technical schools coincided with the cresting of the adolescent population wave. Seckington noted in 1975 that "large secondary schools already exist. Many more are growing rapidly. Like the curve of world population increase, some schools are now showing an exponential growth figure" (p. 90).

Conant's criticism of small high schools and consequent advocacy of larger ones was followed by research which provided supportive evidence that a school with less than 100 students in its graduating class would necessarily suffer from a restricted curriculum, especially for students in the last year or two of school. As Halsall has noted, "It is in the final year, or years, of schooling that the greatest differentiation is needed, in every country, and the greater the differentiation, the greater the need for more staff and, therefore, for more pupils to justify the greater numbers of staff" (1973, p. 106). Halsall's analysis of small British schools enrolling anywhere from 200 up to 700 students, "suggests that Conant's view that a graduating class of a minimum of 100 is needed is slightly conservative ...." (1973, p. 109). And in line with Conant's findings in the United States, Halsall's analysis gave evidence that "the smaller the school, the more its curriculum is likely to suffer in respect of a second foreign language or a full range of science courses" (1973, p. 109).

It is one thing, however, to show as Conant and Halsall have done in their respective countries, that very small schools are at a disadvantage in providing a broad and varied curriculum but quite another to allow the inference to be drawn that the bigger the school gets the better the curriculum will become, ad infinitum. The difference between Conant and Halsall in this respect is that Conant did not try particularly hard to prevent that inference from being drawn, whereas Halsall has taken great pains to show it up as fallacious.

Referring to the massive, complex series of investigations undertaken by Barker and his associates in the early 1960's in Kansas, Halsall noted that breadth of curricular choice was related to size of school in a manner far from linear. Thus, the largest school studied (2287 students) had 65 times as many students as the smallest school (35 students), eight times as many academic behavior settings (i.e., subject classes) and only 2.3 times as many subjects. Furthermore, students in schools of around 300 were found to take an average of six courses per year, while students in schools of around 1800 took an average of only five. However, the Barker studies also revealed that the academically able students in the large schools took more "academic" subjects than their counterparts in small schools. And "the smaller schools are deficient, in comparison with the larger schools, with respect to specialized mathematics, specialized social and behavioral sciences, foreign languages, and specialized business classes" (Barker & Gump, 1964, p. 60; Halsall, 1973, p. 107).

Summing up the Barker study curriculum balance sheet, Halsall comments: "The Barker & Gump study thus shows greater versatility and less specialization in small schools than large, a greater number of subjects taken by individual pupils, fewer academic and more aesthetic and general subjects, a wider range of subjects available in small schools than one would expect, though not as many classes or as specialized in each subject as in large schools, and no evidence as to levels of achievement in any schools" (1973, p. 108).

In the British context it has also been shown that the curricular problems of the small schools "are not by any means so great as used to be supposed . . . . Indeed, six-stream schools (approximately 1000 students) can provide all that is needed at fourth-, fifth-, and sixth- form level in the way of differentiation" (Halsall, 1973, p. 116).

Size and academic achievement

Conant's other main concern about the weakness (or apparent weakness) of the small school concerned academic achievement. In this area, the research evidence gives some support to the view that there is a positive relationship between size and achievement, but the evidence is inconclusive for schools larger than a few hundred.

In 1959, Hoyt reported nineteen studies on the subject between 1924 and the late 1950's. Only four of them showed statistical significance between size and achievement. Hoyt's own study showed only a slight non-significant trend for students from larger schools to get higher scores on tests calculated to show potential for college work. Harmon, on the other hand, showed that schools with less than 100 students in the graduating class all fell below the national norm in the production of science doctorates (1961). Similarly, Feldt concluded, after studying "small" schools of less than 100 students, "medium" schools of 101-200 students, and "large" schools of 201 or more, that academic achievement was better in the large schools (1961). These last two studies seem to give support to Conant's suppositions.

Coleman, in 1966, however, reported that the apparent positive effect of school size on academic achievement disappeared if various facilities and curricular differences were controlled. Higher achievement in larger schools can partly be accounted for by additional facilities such as libraries and science laboratories. Urban and rural differences also account for differing size effects. Large schools in urban areas have no higher achievement that medium sized schools, and sometimes have lower (Halsall, 1973, p. 117).

Four other studies which report on the relationship between size of school and achievement are noted by Halsall (1973, p. 117). A large study by a group of researchers at the University of Pittsburgh in 1962, called Project Talent Study, showed no distinct relationship between high school size and any measure of academic output such as the percentage of students going on to higher education, the drop-out rate or scores on achievement tests.

In Sweden, however, in the late 1960's, Marklund studied 1800 students in large and small schools, and showed that the prospects of students realizing their inherent potential was better in small schools than in large ones (Halsall, 1973, p. 117). Contrariwise, a study reported by Greer and Harbeck in the United States showed that students in schools of 500 or more earned more credits for graduation than students in schools of less than 500. A more sophisticated study, The International Evaluation of Achievement Project, showed an increase in quality of achievement as school size increased, with a plateau reached at about 400. The I.E.A. project also showed that selective academic schools of 700-1000 achieve higher scores than smaller or larger schools (Halsall, 1973, p. 118).

In summary, the research does not show achievement as being much influenced by school size, once a school has reached several hundred students. The very small school does appear, however, to be at a disadvantage in stimulating its students to achieve at a high level, just as the very small school appears to be at a disadvantage in providing for a broad and varied curriculum.

Size, cost and other factors

One of the important factors in decisions to build large schools has always been the belief that per-pupil costs would decrease with size. The 20th century has produced few phrases as seductive as the phrase "economy of scale". But what the budget-watchers have sometimes failed to notice is that the education of adolescents is a somewhat different enterprise than the assembly-line manufacture of material goods.

Smith conducted a study in Ohio in which cost was considered alongside other factors (1961). He reached the following conclusion:

> Although educational opportunities tend to increase slightly in secondary school centers beyond 800, the cost per pupil per unit of educational opportunity shows little further decrease beyond this point. Any advantage of increased size beyond this point appears to be offset by educational and psychological disadvantages. There is little evidence to support any gains in efficiency of operation with building enrolments of more than 1000 pupils. (Turner & Thrasher, 1972, p. 31).

In a similar kind of study (of four different sizes of schools in relation to five qualitative and quantitative factors of educational import) Gray found that schools in the range of 400-999 pupils were placed highest or near the top on all five factors (1962). In schools below 400 pupils there appeared to be an increase in quality as school size increased but a plateau was reached at just under 400 pupils (Halsall, 1973, p. 121).

Ovaitt, in Michigan (1966), studied 281 high schools ranging in size from 76 to 3255. His principal findings were as follows:

1. High schools with an enrolment of less than 400 students tend to pay a premium per pupil cost for an inferior educational program.

2. Per pupil cost is inversely related to the size of the high school as size increases up to and including the 800-999 enrolment interval, and the quality of the educational program is directly related to the size of the high school as size increases up to and including the 1000-1199 interval.

Size and the relationship to the physical, social, emotional and moral dimensions of education

It is true that much of the literature reviewed so far has revealed little interest in the effect of school size on anything other than breadth of curriculum, academic achievement, and cost. There also exist, however, strong humanist concerns amongst some educators about the effect of schools on the development of the whole person, in five major dimensions (intellectual, physical, social, emotional and moral). These concerns have been reinforced by research in industrial psychology. In an impressive listing, Willems, in 1964, summarized institutional size research in relation to effects on people as follows (Barker & Gump, 1964, p. 35-37):

> Frequency, depth, and range of participation
> Persons in smaller groups and other social organizational, and ecological units.
>
> - are absent less often (Beaumgartel & Sobol, 1959; Revans, 1958; Tallachi, 1960; Indik, 1961; Acton 1953; Hewitt & Parfit, 1953; Le Compte & Barker, 1960);
>
> - quit jobs and positions less often (Cleland, 1955; Tallachi, 1960; Isaacs, 1953);
>
> - are more punctual (Revans, 1958; Acton, 1953);
>
> - participate more frequently when participation is voluntary (Dawe, 1934; Laron, 1949; Le Compte and Barker, 1960; Wright, 1961; Coleman, 1961, Fisher, 1953);
>
> - function in positions of responsibility and importance more frequently, and in a wider range of activities (Barker & Barker, 1961a, 1961b; Wright, 1961);
>
> - are more productive (Revans, 1958, Thomas, 1959; Acton, 1953; Marriott, 1949);
>
> - demonstrate more leadership behavior (Bass and Norton, 1951)
>
> - are more important to the groups and settings (Barker & Barker, 1961a; Katz, 1949; Thibaut and Kelley, 1959);
>
> - have broader role conceptions (Thomas, 1959);

- are more frequently involved in roles directly relevant to the group tasks (Dawe, 1934; Bales, 1953; Taylor and Faust, 1952);

- are more interested in the affairs of the group or organization (Revans, 1958; Acton, 1953).

Communication and social interaction
Small groups and other ecological and social units give rise to:

- greater individual participation in communication and social interaction, and less centralization of the communication around one or few persons (Kelley and Thibaut, 1954; Bales, 1952; Bales and Borgatta, 1955; Taylor and Faust, 1952);

- more greetings and social transactions per person (Wright, 1961);

- facilitated communication, both through greater clarity and decreased difficulty (Campbell, 1952; Indik, 1961);

- greater group cohesiveness and more frequent liking of all fellow group members (Katz, 1949, Larson, 1949);

- greater ability to identify outstanding persons and higher agreement about such persons (Coleman, 1961).

The reported experiences of persons
Persons in smaller groups and other social and ecological units,

- receive more "satisfaction" (Katz, 1949; Tallachi, 1960; Stater, 1958);

- speak more often of participation having been valuable and useful (Anderson, Ladd, and Smith, 1954);

- are more familiar with the settings (Wright, 1961);

- report being more satisfied with payment schemes and with the results of group discussions (Campbell, 1952; Hare, 1952);

- find their work more meaningful (Worthy, 1950).

In summary, the above group of findings has increased the concern of some educators about the effect of school size on students and teachers. Campbell, however, states that this knowledge has had little influence on schools.... "On the contrary, the enlargement of schools has often been accepted not as an unfortunate necessity but as a welcome educational improvement. This evaluation is usually based upon the assumption of a direct positive relationship between the properties of schools and the experiences and behaviors of their pupils, e.g. the assumption that a rich curriculum means rich experiences for the students, or that a

comprehensive programme of extra-curricular activities means strong individual involvement." (1965, p. 11)

But this assumption of a linear relationship between the properties of schools and the experiences of their pupils is erroneous, as Halsall has argued. Barker and Gump claim that it is based on lack of appreciation for an illusion, an inside-outside perceptual paradox:

> To an outside observer, a school with many students is impressive: its imposing physical dimensions, its seemingly endless halls and numberless rooms, its hundreds of microscopes, its vast auditorium and great audiences, its sweeping tides of students all carry the message of power, movement, vitality, purpose, achievement, and certainty. In contrast, a small school with its commonplace buildings, its few microscopes, its dual-purpose gymn-auditorium half-filled with students who assemble and depart, not in tides but in a tangle of separate channels, is not impressive.
>
> But to an inside participant the view is different. .... There is, indeed, an inside-outside perceptual paradox, a school size illusion .... We have discovered that small high schools are, in fact, not so small on the inside as they are on the outside. In terms of number of behavior settings, number of varieties of behavior settings, and number of inhabitants per setting - interior characteristics not easily seen from the outside - small schools differ less from large schools than in terms of number of students and amount of space, which are perceptually salient external attributes of schools. Here is one basis of the school size illusion. But, more important, these findings raise the question of which are the stronger variables so far as students are concerned, the inside ones or the outside ones, and how they operate upon students. (Barker & Gump, 1964, p. 61)

The series of studies reported in Barker and Gump's Big School, Small School (1964) represent one of the most serious efforts ever made to understand the relationship between school size and extra-curricular activities. Extra-curricular activities have long been regarded in North America and in Britain (and generally in English-speaking countries) as important activities that schools should foster in order to help students in their overall personal development; in particular, to help them to develop intellectually, physically, socially, emotionally, and morally. The Barker and Gump studies, and others inspired by them, give very strong evidence that extra-curricular activities in small schools bring more benefits, as well as higher quality benefits, to many more students, proportionately, than do extra-curricular activities in large schools. Summary results of the Barker and Gump studies are listed below:

(1) The average number of extra-curricular activities and kinds of activities in which students engaged during their four-year

high school career was twice as great as in the large schools.

(2) The large high school provided its students with a larger number and more varieties of extra-curricular activities than small schools but, in spite of this, the small school students participated in the same number and in more varieties of the available activities, on the average, than the students of the large school.

(3) A much larger proportion of the small school students held positions of importance and responsibility in the settings they entered, and they occupied these positions in more varieties of settings than the students of the large school.

(4) Students from the small schools reported more satisfactions related to the development of competence, to being challenged, to engaging in important actions, to being involved in group activities, and to achieving moral and cultural values; while students from the large school reported more satisfactions dealing with vicarious enjoyment, with large entity affiliation, with learning about their school's persons and affairs, and with gaining "points" via participation.

(5) Most of the differences in the kind of satisfactions experienced by small and large school students were due to differences in the number of students who occupied important, responsible positions.

(6) Students of small schools reported experiencing more attractions and more pressures toward participation in voluntary activities than students of large schools, and their responses reflected more involvement and feelings of responsibility.

(7) The small schools contained fewer "outsiders," i.e. students who took no part in extra-curricular activities. (Barker & Gump, 1964, p. 196-197)

The essence of the difference between small and large high schools is contained in the results of the Barker and Gump studies which bore out the central hypothesis which guided those studies, namely, "that the essential equivalence of small and large high schools with respect to kinds of parts, together with their difference in number of students per part, provides a crucially different environment for students" (Barker & Gump, 1964, p. 195 - underlining mine). The authors continue:

> A prototype of this difference is the junior class play of a small school, where each member of the class is essential to the play's successful presentation, versus the junior class play of a large school, where at most only 15% of the members of the class have more than a spectator's involvement in the play. According to the theory that guided the research, the behavior settings junior class play, senior English class, football game, student council meeting (for examples) are not passive stages upon which behavior may occur, but they are extra individual entities with power over participants and potential participants.

In 1969, Leonard Baird reported a study using a sample of 21,371 students which he called "A Critical Examination of the Big School, Small School Hypothesis." Since the chief limitation of the Kansas study was that it involved only five schools in one small area, Baird's study used a 3% sample of 712,000 students who took the American College Testing Programme battery of tests. These tests included a Student Profile Section which included questions about non-academic achievements. The results gave "substantial support to the work of Barker & Gump" (Baird, 1969, p. 258). "Small schools had higher rates of accomplishment in four of six non-academic areas (leadership, drama, music, writing) and in the total number of accomplishments. Furthermore, the students from small schools had as high a level of accomplishment in the other two areas, science and art" (p. 259).

Baird's study overcame another limitation of the Barker and Gump investigations in that it obtained data from four sizes of school, ranging from schools with graduating classes of less than 25 to schools with graduating classes of more than 400. Generally, the number of accomplishments dropped consistently as school size increased.

A second study by Baird showed a similar relationship between non-academic achievements and size of colleges. Baird concludes:

> Conant and others have argued that large schools can concentrate resources and develop more impressive facilities than small schools..... However, the present study suggests that what is important is the use made of facilities, rather than their size or impressiveness. Students in small schools do seem to make more efficient use of the facilities they have, at least in encouraging student participation in educationally-valuable activities. (1969, p. 259)

In 1964, Kleinert completed a doctoral thesis which examined the relationship between student participation in activities and the size of the high school, giving particular attention to the high school with high enrolment. Kleinert claimed that the importance of this relationship arose from the fact that the percentage of high school students attending large high schools had risen

sharply, and from the fact that students' extra-curricular experiences are generally considered to be one of the important features, supplementary to course offerings, in the total effect of the high school on the growth and development of students.

Seven classifications of activities were examined in 63 southern Michigan high schools divided into three size groupings: less than 600 students, from 600-1499, and 1500 students or more. The results showed that the correlation between student participation and school size was strongly negative: 76% of students in small schools participated in one or more activity, 49% in medium-sized schools, and 32% in large schools. Furthermore, small schools had more students participating in several activities in a given year than did larger ones. There was also a strong inverse relationship between school size and the total number of leadership roles available to students. Perhaps the most important evidence of all was that which indicated the increasing rate of participation as schools got smaller, below the 200 mark.

In a paper published five years later, Kleinert reflected on the implications of his earlier research (1969), stating that "ameliorating the increasing problem of the high school students' anonymity in urban America can occur only if the leaders of our schools recognize the extra-curricular programme as a vital part of the whole educating process" (p. 42). Since many large schools have been built and cannot be made small again, Kleinert proposed not only that the trend to divide high schools into several sub-schools be encouraged, but that the sub-division be carried through to sub-divide the organization of extra-curricular activities, something which had rarely been done before (in the United States).

The evidence from both the Barker and Gump studies and that of Kleinert indicate that the ideal school size for extra-curricular activities is much lower than it is for breadth of formal curriculum, academic achievement, or cost--unless, perhaps, sub-dividing the large school as Kleinert has suggested can achieve the same values for the extra-curricular programme as it enjoys in the schools of just a few hundred students.

THE PERSONAL DEVELOPMENT DIMENSIONS: HOW IMPORTANT ARE THEY?

A review of the literature in this area is necessary, for concern about the influences of size and organization in secondary schools is essentially concern about personal development. It is concern about what the British call the pastoral care function of schools. On the one hand, it is concern about loners in large schools, about marginal students who do not get involved, about drop-outs and potential drop-outs who find they have no real stake in school life, about youth alienation and the attitudes to life evincing that alienation. On the other hand, it is concern about all the students, about developing their characters, about strengthening fragile adolescent personalities, about developing potentialities of heart as well as of mind, of "helping," as one British headmaster summed up his

educational goals and objectives, "the weak to become strong, and the strong to become gentle." In sum, it is concern about that which is easier to talk about than to do anything organizationally which might help, namely, the whole affective domain.

In 1974, Urie Bronfenbrenner wrote a disturbing article about the increasing alienation of young people from society, about the "feeling, and fact, of disconnectedness from people and activities" (p. 53). He sees the alienation of individuals as having its roots in the institutions of society, and particularly in the institution of the family. But he sees the school as also heavily involved, particularly in its role in isolating children from real social responsibilities.

> Although training for responsibility by giving responsibility clearly begins in the family, the institution that has probably done the most to keep children insulated from challenging social tasks is the American school system..... Education in America, when viewed from a cross-cultural perspective, seems peculiarly one-sided, emphasizing subject matter to the exclusion of another fundamental aspect of the child's development for which there is no generally accepted term in our educational vocabulary: what the Germans call Erziehung, the Russians, vospitanie, and the French, education. Perhaps the best equivalents are "upbringing" or "character education," expressions that sound outmoded and irrelevant to us. In many countries of western and eastern Europe, however, the corresponding terms are the names of what constitutes the core of the educational process: the development of the child's qualities as a person - his values, motives, and patterns of social response. (p. 60)

And, says Bronfenbrenner, the insularity of the school from the life of the community

> is repeated within the school system itself, where children are segregated into classrooms that have little social connection with one another or with the school as a common community for which members can take active responsibility. (p. 60)

As a result, "the schools have become one of the most potent breeding grounds of alienation in American society" (p. 60).

Two years after Bronfenbrenner's article appeared, Edward Wynne published an even more disturbing article. He first catalogued the rise of various indicators of alienation amongst youth (suicide, 3.7 per 1000 to 11.9 per 1000 of the 15-19 year-old cohort between 1950 and 1974; marijuana use from 27% in 1968 to 48% in 1976 amongst Grade 9 students; alcohol use from 62% in 1967 to 72% in 1973 amongst Grade 7 boys; delinquency cases from 19.1 per 1000 to 33.6 per 1000 between 1957 and 1972 for 10-17 year-olds). He then noted evidence of

increases in attitudes evincing alienation (a steady and incremental decline in youth attitudes sympathetic to co-operative and group activities between 1947 and 1968 as revealed by the Minnesota Multiphasic Inventory Test; a decline in agreement with the statement "human nature is fundamentally cooperative" from 70% to 51% at Dartmouth College between 1952 and 1969; and other tests which indicated increasing youth alienation "as a long range trend" towards egoism and away from the acceptance of responsibilities). (p. 19-30)

Wynne then goes on to analyze the modern high school, using as a framework Durkheim's theory of alienation which developed out of his classic sociological study of suicide. Wynne notes that Durkheim, having concluded that "suicide varies inversely with the degree of integration of the social groups of which the individual forms a part" (p. 33), goes on to argue that the suicide rate in modern societies is only an indicator of the tension created by all forms of modernization. He believed that such suffering would gradually display itself in other, more socially disruptive forms and made a plea for the creation of social institutions that would increase, not decrease the individual's sense of group embeddedment.

Wynne takes Durkheim's analysis and applies it to formal education. Amongst the highly disintegrating features of modern high schools, he notes the following:

1. Segregation of the young from contact with youths not in their immediate age range.

2. Segregation of the young from persisting contact with particular members of their cohort, since students are frequently shuffled from one group to another to meet the needs of rational scheduling.

3. Failure to encourage the majority of young people to participate in cooperative work efforts.

He also notes that contemporary institutional structures compel teachers to have many brief contacts with many different students, compared to a smaller number of lengthy, intense contacts with fewer students. This permits the teacher to transmit focused cognitive information to the student, but makes it difficult for teachers and those who are taught to share strong, integrating emotions such as anger, affection, or humour. As a result, affective learning--learning how to control and express one's emotions in a substantial and satisfying fashion--is adversely affected. "In modern schools," Wynne asserts, "a pupil can properly feel that, while he has received a great deal of cognitive information, no one really 'knows' him" (1976, p. 35).

In Wynne's view, the disintegrating features of the modern high school are contributing factors to the high level of alienation amongst young people. In general, he believes that the socialization process for large numbers of young

people today is not working well, and that since schools control a large part of that process, part of the cause of malaise in that process may lie in schooling itself as it is presently organized and practiced in many large impersonal schools.

Wynne's views do not conflict with Bronfenbrenner's, even though Bronfenbrenner sees the disintegration of the family as the most potent cause of youth alienation. However, Wynne's views have been more criticized. Thus, in a special issue of the Phi Delta Kappan (Jan., 1978), David Tyack takes Wynne to task for placing the blame on the socialization process rather than on society itself. So, also, do Arturo Pacheco and John Porter. But James Coleman is more perceptive when he states:

> The data show, I believe, the decreasing adequacy of the environment within which young people find themselves growing up. The school is not the principal cause of this inadequacy; but that is not to say that the school cannot act as a partial remedy for it.
>
> An indicator of this inadequacy lies in the "desirable school changes that Wynne lists .... These changes are all in the direction of more "personalized" schools - smaller, less bureaucratic, less insulated from the community .... There are many reasons why schools have gone in the other direction, have become larger, more departmentalized, and more insulated from the community. That direction is the direction of specialization. It has allowed high schools to give more advanced, more specialized courses, teachers to concentrate in their specialty, and altogether to provide both a broader set of course offerings and more intense concentration on specific courses or programs.
>
> With all these virtues of large, departmentalized schools, why the call for their opposite? What do the small personalized schools provide of such importance that it justifies losing the considerable virtues of their opposites?
>
> The answer lies in some of the social phenomena that Wynne lists ... and the consequences they generate within persons who grow up under those conditions .... Wynne is correct, I believe, in the distressing set of consequences he sees for young persons' attitudes. (Phi Delta Kappan, Jan., 1978)

Coleman's views echo a number of those of the O.E.C.D. External Examiners who looked at the Canadian education scene in 1975. In a section of their report titled "Industrialization of Education", they note "how far many Canadian schools have moved towards a traditional industrial concept of the organization of education services" (O.E.C.D. External Examiners' Report,

Appendix B, Pt. 1) and how this movement has quite logical consequences hurtful to children. The excessive application of key concepts in industrial organization, such as division of labour and responsibilities, and specialization of function, have the unfortunate result that the authority of specialists, who generally know only certain particular aspects of a youngster's being, takes precedence over the authority of the generalists who, at least structurally and philosophically, are the only ones in a position to attend to the multiple factors which can affect the growth of a youngster in the totality of his or her being. The social milieu of the school becomes affected by this development. Extensive use of specialists means that youngsters meet a wide variety of adults each day, all of them more or less strangers. Correspondingly, teachers see a large number of students every day, without a chance to get in more general contact with more than a very few of them. At the same time, peer groups for constructive purposes are difficult to establish, and they are systematically broken up by the scheduling system. And, as the Examiners note, "If we add to this the practical and human complexities of enormous school factories as seen through the eyes of the child, it provides a picture of a rather depressing social milieu, even if it may be somewhat easier to take for pupils approaching the end of the secondary school" (O.E.C.D. External Examiners' Report, Appendix B, Part 8).

Consistently high on the list of educational priorities desired by the public are personal development goals -- citizenship, positive self-concept, ability to get on with people, respect for the rights of others, etc. The problem for teachers and school administrators is: How can the school do anything significant to assist in the development of these laudable qualities in its students? Whatever the answer may be, it would seem to lie less in the cognitive domain, less in adding courses, courses in self-development, values education, or citizenship, and more in the affective domain throughout the school, and particularly in extra-curricular activities and in the so-often negatively perceived but possibly under-utilized and under-valued dimension of school life called the hidden curriculum.

Some years ago the head of an Oxford college developed the habit of inviting to lunch each day two first-year undergraduates. He went through the list of newcomers each year until he had seen them all. When asked why he did that, he replied, "I want to know everyone in this college by name and by as much more as time permits me to learn". When asked further why the college was reducing its enrolment from a post-war swollen number to its pre-war norm while the demand for entry remained high, he replied, "Because when there are more than 400 students I can't remember all their names". His comment was certainly not scientific evidence in favour of small institutions, but it raises an important question: What difference does it make to a student if he is known and knows himself to be known by all his teachers? Is the environmental press different for him than if he were an unknown?

Monahan cites some studies (1965, p. 27-29) which indicate (a) good pupil-teacher relationships promote learning (Baxter, Davis & Hopkins, 1941; Witty, 1974); and (b) good pupil-teacher relationships correlate significantly with teachers' knowledge of pupils (Hoyt, 1955; Brookover, 1945; Bush, 1942).

Bush reported a rank order correlation of:

1. +.46 between the better-known pupil and the pupils for whom teachers have a personal liking.

2. +.40 between pupils whom the teacher knows best and the pupils who consider the teacher to be sympathetic.

3. +.55 between pupils whom the teacher knows best and the pupils who consider the teacher fair in making decisions.

Bush then commented:

> Case studies, correlation, and pupils' and administrators' opinions suggest a positive relationship between the effectiveness of the teacher-pupil relationship and teachers' knowledge about pupils . . . . Effective educational relationships will be promoted by increasing the teachers' knowledge of pertinent individual differences of his students . . . . Teachers should possess in-the-head knowledge about each pupil in their classes in at least six fields: (1) health; (2) abilities; (3) aptitudes, competencies, and interests; (4) ambitions, purposes, desires; (5) special blocks or stresses and strains; (6) cultural milieu, including home situations. (Monahan, 1965, p. 27).

Hoyt found that "there was a definite tendency for increases in teacher knowledge of pupil characteristics to improve pupil attitudes towards teachers", while Coleman found that "when a faculty had little understanding of its students' backgrounds and needs, several things occurred. The faculty had a low opinion of the students, the students had a low opinion of the faculty's concern for them, and the status of the teaching profession dropped measurably in the eyes of the students" (Monahan, 1965, p. 29).

Monahan discovered an inverse relationship between high school size and teachers' knowledge of students in schools of the Los Angeles City School District. In the conclusion to his study, Monahan suggested that "not only should high schools be limited in size, but that the organizational structure of the school should also be evaluated to determine if there are means of encouraging concern for individual students. The school-within-a-school is one answer to this problem; there may be others. Too often organizational and administrative efficiency has dictated the structure of a school. It is time now to put into focus those things about the learning process which are believed to be an aid in achieving educational objectives. The school building and organization should not dictate these objectives but should serve them". (1965, p. 123-4).

In a case study of two carefully-matched Ontario high schools, one of which was organizationally sub-divided into "houses" and teacher advisor groups, Bullen found that the teachers' knowledge of students in the sub-divided school was three times as great as the teachers' knowledge of students in the traditionally organized school. (1980)

Personalizing Secondary Schools through Decentralized Organization

Bringing the literature on decentralized organization into focus.

Although the house system in some British public schools (i.e., private boarding schools catering for the most part to well-to-do upper classes) has been used for hundreds of years, its adaptation for use in non-private day schools has been much more recent. Since the end of World War II, and particularly since the early 1960's, the concept of the comprehensive secondary school has increasingly taken hold, as separate grammar, secondary modern, and technical schools have lost ground under the impact of economic and egalitarian social pressures.

The demand that the new comprehensive schools be large in order to provide broad curricular choice for a complete spectrum of students was paralleled from the beginning of the comprehensive movement by the demand that internal arrangements should be such that individuals would not be lost sight of, and that integrated, cohesive communities within the schools would develop to enable individuals to have a sense of belonging. A variety of arrangements developed, some vertical, some horizontal, and some a combination of the two basic types.

The effectiveness of houses, year groups, or upper, lower, and middle school groups, has been the subject of lively debate. The British research has consisted largely of more or less sophisticated reporting of this debate, often in conjunction with debate on other aspects of what might be called the comprehensive revolution of British secondary education. Curiously, two of the most informative studies of the house system in British schools have been conducted by Americans (Dierenfield, 1975; Pounds and Pounds, 1968).

A striking feature of the British debate on the advantages and disadvantages of various forms of internal organization in comprehensive schools, in contradistinction to the debate in North America about similar matters, is its widespread and public nature. The recognition of the need to break down large schools into smaller cohesive parts appears to be universal, and there seems to be a great variety of solutions being attempted.

In the United States, interest in sub-dividing schools seems to have developed slowly after World War I. According to Plath (1965, p. 11-13) sub-divided organization was instituted at Cleburne, Texas, High School in 1919 but thereafter in only eight public high schools up to 1950. During the next decade, however, fifty or more schools were estimated to have adopted some form of decentralization (Plath, 1965, p. 17). Plath notes that in 1960 researchers at the College of Education, Michigan State University, visited 300 selected schools, choosing 30 for intensive study of schools-within-schools organization. In 1965, Plath listed 83 schools identified to him as using "little-school organization".

The first serious research into sub-divided organization in the United States began in 1958 with the completion of two doctoral studies (Hodgson, York). Subsequently, doctoral studies have been completed by Elliott, 1966; Barry, 1967; Salek, 1968; and Bowden, 1971). The study by the Pounds, previously mentioned, while primarily concerned with schools in England and Wales, did gather data from 42 American schools for comparison purposes. Plath's monograph Schools Within Schools, published in 1965, completes the list of major American research in this field. The literature on the subject, however, embraces many short articles in educational journals. The National Association of Secondary School Principals published an edition of "The Practitioner" (Sept., 1976) devoted to an analysis of the Schools-Within-Schools form of organization, indicating continued interest in the problem of bigness in schools. Forty-four schools are listed in this publication as employing a school-within-school type of organization.

In summary, the American experience to date is quite different from the British in that only a small percentage of schools throughout the country has been organized on a sub-divided plan, yet proportionally more research studies have been carried out. The nature of the research, however, has not been markedly different from the British: basically, it reports experience with the plan and the opinions of people who have been associated with it in various schools.

In Canada, interest in sub-dividing large schools seems to have developed only in the last ten or fifteen years. It is true that the house system has been used extensively since pre-war days in some elementary and secondary schools for organizing intramural sports but, until recently, nothing more fundamental than this very superficial form of sub-divided organization appears to have been attempted.

In Ontario, with the advent of the credit system in the late 1960's and the subsequent development of individual timetables, interest in creating smaller units for social purposes within large schools rose appreciably five to ten years ago, but lately appears to have waned.

Alan King and W. K. Warren, who studied Ontario house system schools in the early 1970's (1974a) asked rhetorically (1974b, p. 4): "Why have some schools adopted a house system and then dropped it? Clearly, the staff of some schools do not understand the raison d'etre of such systems and are introducing them in a token way." Failure to implement a radically different form of internal organization because of lack of understanding and value internalization

(Fullan, 1975) seems to have been the experience of a number of Ontario schools.

In Quebec, a few schools have instituted house plans. The Alexander Galt Regional High School in Lennoxville has a physical plant purposely designed to facilitate house system operation. In British Columbia, one junior and one senior secondary school, in Richmond and Comox, respectively, are using the house plan of operation. Like the Lennoxville school, the Highland Secondary School in Comox has the advantage of a purpose-built house-system building. In the last two years (1983-85) a new secondary school in Edmonton has been built following the Highland School model, and the Winston Churchill School in Lethbridge has completed its conversion into a fully sub-divided school, with both "houses" and teacher adviser groups.

The Canadian literature on house system operation, apart from the King and Warren study and the case study comparing two Ontario high schools (Bullen, 1980), consists of a few journal articles (Gilbert, 1970, 1973; King & Warren, 1974b; Roberts, 1971) and a number of internal evaluation reports of schools using the house plan. In addition to an evaluation report, General Panet High School in Petawawa has produced a very useful operational handbook of some magnitude.

Decentralization as a Means of Focusing Attention on the Individual

Over and over again in the literature on sub-divided secondary school organization, from both sides of the Atlantic, is recorded a concern for the individual and for his or her development as a whole person. The basic motivation for breaking a large school down into smaller component parts, into houses, "little schools," year groups, tutor groups, or teacher-advisor units, is the desire to create face-to-face communities of young people and adults who know each other as whole persons rather than as role-performing specialists in various subject classes. The headmistress of Woodberry Down, the first large house-system comprehensive school built in London, put the matter quite simply: "No school which does not make adequate provision for every child to be known intimately as an individual and guided as such through his adolescent years is likely to provide a completely satisfactory education, no matter how excellent the equipment or materials provided" (Chetwynd, 1960, p. 90).

In a publication of the (American) Association for Supervision and Curriculum Development, a similar point is made: "In a junior high school of larger than 500, administrative devices which provide for smaller sub-units or for "schools-within-the-school" are wise. The young adolescent needs to find a respected place for himself. He needs to be known and seen; he deserves attention" (A.S.C.D., 1961, p. 13).

And in a paper presented to the National Association of Secondary Principals, in 1975, Owen Hensen stated: "The central thrust of the Schools-Within-Schools program is to humanize, individualize, and personalize education for each student" (p. 3).

Decentralization as a Means of Creating Genuine Communities for Personal Development within Large Schools.

Another constant theme in the literature on sub-divided secondary school organization is the theme of community, of the need to create conditions of social interaction within schools in which individual students can have a sense of belonging, and in which they can find significance as a part of something larger than themselves. Houses, year groups, schools-within-schools, and other sub-divisions are seen as organizational expressions to help meet this need, for every student. The following excerpts from the Canadian, American, and British literature are illustrative of this perennial and vital theme:

> When "Home Forms" stop travelling through the school as units, there is a tendency for students to lose their sense of belonging to a group. This very old plan of school organization (the House system) may provide the answer, by slicing the large institution into smaller sections within which the student can establish new loyalties. (Gilbert, 1970, p. 7)

> Each house will be a small community within a larger school. Each ..... will operate as a separate unit having its own records system, its own student council, its own planning committee for its own assemblies, its own extra-curricular clubs, drives and activities, and its own teams for inter-house sports competition. Each of these home organizations will send delegates to all the school organizations, but no one will have to buck 1500 competitors for some small place in the social sun. (From the educational specifications for Newton South High School, Newton, Mass.)

> The large school .... faces problems on the social front unless adequate provision is made for children to feel they belong. The House System has been created to meet this need. Each of six main divisions is designed to be a school in miniature, manned by a Head and two Deputies and eight staff. Nowhere does the community exceed 250 and a group of this size should be large enough to develop an identity of its own, yet small enough to enable each individual to feel and experience significant membership. (Filton High School Staff Handbook, 1972-3, Bristol, England)

Earlier, mention was made of Wynne's analysis of typical modern high schools, in which he used a Durkheimian framework to show some disintegrating and alienating features of such schools. What Wynne laments in the life of so many modern high schools are apparently those organizational features which tend to produce Gesellschaft rather than Gemeinschaft types of relationship: transient, cool, "exchange"-oriented, and impersonal relationships, rather than lasting, warm, "giving"-oriented, and personal relationships.

Wynne's lament is seemingly also for something Sarason has called the loss of a psychological sense of community. Sarason describes the psychological sense of community as follows:

> The perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure--these are some of the ingredients of the psychological sense of community. (1974, p. 156-7)

Sarason is concerned with this topic because of his belief that "the dilution or absence of the psychological sense of community is the most destructive dynamic in the lives of people in our society" (p. viii). He goes on to say: "That I hold this belief is less persuasive than the fact that it has been for several hundred years a theme noted and discussed with ever-increasing frequency and urgency in Western society." In keeping a tally of a large number of books dealing with themes of loneliness, alienation, rootlessness, and not belonging, Sarason reached this conclusion: "The important point is that, regardless of the political, religious, or philosophical persuasion of the authors, they agreed that the destruction of the psychological sense of community was the central problem in social living" (p. viii).

A point of view about school organization and school life <u>not</u> in harmony with the type of thinking exemplified by Sarason and Wynne is quite often heard from school administrators. Schools, they say, especially secondary schools, are preparing students to live in the real world (sometimes it is called the cruel world). Students need to learn to cope with the impersonal world of Gesellschaft, to prepare to journey into that "strange country" and to survive in it. Therefore, they argue, secondary schools, if not elementary schools, <u>ought</u> to be organized to match the real world around them. Thus, some argue, secondary schools should be organized like vast supermarkets wherein students wander freely about selecting the knowledge and skills they think they need (to "make it" in the "real" world), paying at the check-out counter with the requisite number of hours' attendance, completed assignments, and test results. Counsellors, of course, would help students make their choices, and in cases of emotional crisis and "trouble" (which realistically one must expect) the school or district psychologist would also be on hand to help out.

Admittedly, the above picture is somewhat overdrawn and, admittedly, there is point to the argument that schools ought to assist students to learn to cope with the impersonal, "exchange"-Gesellschaft features of the "real" world (secondary school operations as mere extensions of the mothering mode of primary class operations would be ludicrous), but on the whole the argument that large impersonal secondary schools are "right" for educating the youth of Western industrialized societies is specious. Large secondary schools appear generally to have been built, as August Gold has claimed was the case in New York City, more for reasons of expediency and presumed efficiency (i.e., cost-effectiveness) than for clearly thought out educational reasons (1975).

The call for a return to closer community life in schools, contained in much of the literature on sub-divided school organization is a call in reaction to the bigger-and-more-specialized-is-better syndrome which has affected educational thought in some parts of the world for over half a century. Sarason's comment below appears to hit the nail on the head:

> If our schools today are seeking desperately to become more interesting places, to give children in them a greater sense of belonging, and to reduce the artificial barriers between learning and living, it is a reflection of a long-standing state of affairs in which the classroom and the school became increasingly differentiated, specialized, and professionalized--all of this in pursuit of efficiency and humaneness. (p. 172)

Decentralization as a Means of Providing Opportunities for Success and Development through Participation in Extracurricular Activities

The studies of Barker and Gump (1964), and others based on Barker's behavior setting theory (Wicker, Willems), demonstrate the personal development values of the small school. These values exist not only because of the opportunities for participation in the small school but also because of the combination of external social forces and internal psychological forces which impel students to take advantage of those opportunities. Sub-dividing a large school can, in theory, have the same effect. In practice, however, the effect is often unrealized because the sub-division plans do not extend beyond the administrative and counselling areas to include extra-curricular activities. This seems to be the case in a number of schools in the United States operating on the schools-within-a-school plan. Barker notes his impression that some of these schools "were unaware of the essential advantages of the small units and, in fact, destroyed some of the advantages by clinging to big-school teams, theatricals, clubs, etc. "(Personal communication, Sept. 1, 1977). Kleinert, in a reference made earlier (p. 43) notes the same need to take full advantage of the opportunities offered by the schools-within-a-school concept.

In Britain, there appears to be no problem in this respect: houses, at any rate, have always been hot-beds of participation and inter-group rivalry through the extracurricular program.

Dierenfield notes:

> Group activities are common in houses and enhance the opportunities for involvement . . .
>
> - Sport teams are formed in areas ranging from soccer and rugby to chess and bridge. Fierce loyalties are built up . . .
>
> - Clubs afford students an opportunity to explore common interests together and to expand horizons . . .
>
> - Community improvement efforts are commonly handled in group situations. Houses or even tutor groups will engage in money-raising projects for local charities, assist elderly people, plant trees, or clean up dirty or littered areas.
>
> - Social occasions are frequent in houses. Such events as dances, parties, dinners, and attendance at local cultural events takes place on both the house and tutor group level.
>
> - Educational meetings take place on a house and tutor group basis. Such activities as visiting speakers and field trips are common in many schools. (1975, p. 605).

Practical Problems

Through all the literature on sub-divided schools is to be heard the note of concern for treating students as whole persons, and for creating a school environment conducive to every student's growth in the physical, social, emotional, and moral spheres, and not just in the intellectual. The literature shows, however, that there is much yet to learn about the most effective ways of achieving these aims: experience has shown disadvantages and difficulties, as well as advantages, with house systems, year systems, schools-within-schools, and other schemes.

The most recent thrust in Britain, where there has been so much experimentation, is towards finding better ways to integrate the academic and social sides of secondary schools. The scheme used in the Countesthorpe Comprehensive School in Leicestershire is one promising experiment, where a highly individualized approach to learning utilizes core subject teaching teams in a base area for much of the school day. "This plan seems to overcome the dichotomy between pastoral organization and academic organization and get close to the heart of a stable and meaningful relationship between teacher and student" (Seckington, 1975, p. 92)

Halsall thinks that, in Britain,

> We have not been sufficiently aware of the importance of teaching groups and social groups being one and the same. Nor have we sufficiently realized the relevance of the concept of territoriality and, where we have done so, we have not usually managed to combine restriction to a particular school area for children with an adequate variety of teaching for teachers, unless the latter moved all over the building. (1973, p. 152)

In Canada, in those few schools which have made serious attempts to implement sub-division plans, "the relevance of the concept of territoriality" as Halsall calls it above, is accepted by some but not by others. This investigator sought the opinion of administrators in six Canadian schools on this point, and received an equal split on views: three were in favour of separating houses geographically within the school., three were not. Opinions seemed to be quite definite both ways. Thus, L.D. Read, Principal of Bayside Secondary School in Belleville, Ontario, stated:

> A physical lay-out lending itself to "house areas" is highly desirable.... Recently I returned from a six-month sabbatical in England, where the house system is very well established and, invariably, in very new schools each house "area" had a special part of the building reserved for it. In each of these areas was included a general meeting room, separate cafeteria facilities, and recreation equipment. (Personal communication, Oct. 20, 1975)

A clear opposing view came from Barton Secondary School in Hamilton:

> With respect to the design of the school plant, we believe that no special allowances should be made for the house system . . . . The advantage of having homerooms spread throughout the building is that it permits friendly rivalry between adjacent homerooms but prevents houses from becoming isolated in certain areas with one group of subject teachers. (P. Costello, Personal Communication, Nov. 18, 1975)

Dierenfield's extensive survey of British comprehensive schools resulted in the following observation:

> The need for special areas for houses is a matter of controversy among English educators. Only 14% of the English comprehensive schools with house systems were built with specially designed facilities, according to

> my 1974 survey. Headmasters/mistresses tend to believe that, while separate areas for house operation help to maximize effectiveness,, it is not a sine qua non. Tutor groups could easily meet in classrooms and house meetings could be scheduled throughout the week in larger quarters available in every school. The primary factors in the success of a house system are its organization, dedication of house staff, and time and effort expended by those concerned to make it work. (1975, p. 607)

The pro's and con's of vertical vs. horizontal organization of school sub-units have been strenuously debated in Britain. Benn and Simon reported in 1970 an apparent shift in popularity toward year systems rather than house systems, especially for small schools under 600. But they offer the view that this may be because building design affects organizational decisions after a school has been built (revealing that the not unknown Canadian practice of putting the cart before the horse may not be unknown in England either!)

The giving of full details of the British struggle to find satisfactory organizational forms for meeting both the academic and personal development needs of pupils in large, comprehensive schools is beyond the scope of this paper. It is, however, important to note that that struggle goes on and, from the point of view of this paper, the results of that struggle must be considered of vital interest to educators in other countries who are struggling to improve the quality of education too. The summary statements below are, therefore, considered pertinent to that on-going struggle wherever it is being fought.

> Comprehensive schools are sometimes big places and sometimes seem impersonal. That is why it is important to work out carefully the internal organization to give each boy and girl a feeling that somebody cares, that there is somebody to whom he or she may turn for help and advice, and that there is some constant and congenial unit through which he or she may participate and to which he or she may really belong. Some schools still have a long way to go. (Benn & Simon, 1970, p. 230)

> The complex problems of the large school require complex, and sometimes expensive, solutions. So far, research suggests that they do not quite make up for the losses in personal contact and personal development that go with increased size, but that the effort and expense involved is necessary cannot be questioned. (Halsall, 1973, p. 152)

Conclusion

The foregoing review of research on secondary school size and internal organization gives strong support for the views expressed by Torsten Husen in the statements quoted in the introduction to this paper. Husen's fresh warnings and remedial suggestions amplify echoes from previous warnings of the 1970's, of which the following three are typical:

> Referring to large schools in Britain, Elizabeth Halsall bluntly asserted: "...we must undertake a radical rethink about them. We ought not to build any more, and we should reappraise what we are doing with those we have, with the aim of producing "small school" conditions in them." (1975, p. 88)
>
> From Canada we get this: ..."most of us recognize that there are problems connected with size of institution. In the age of bigger and better, some things have been getting bigger but not better." (Roberts, 1971, p. 197)
>
> And from the United States: "School size does make a difference. Size makes enough difference that every district should adopt a policy stating the size range it intends to use in designing schools. If schools are already too large, efforts should be intensified to improve the lot of students by careful attention to internal organization." (Turner and Thrasher, 1972, p. 38)

In the absence of convincing evidence contrary to any such summary conclusions as above, it would appear to be the Ministry of Education's responsibility to refuse to support future building programs which entail secondary schools larger than ____ students, as well as secondary schools larger than ___ students which do not utilize sub-division plans of one sort or another.

What is your view? What numbers would you put in the blanks above?

Thoughtful responses to this paper will be welcomed. Please address your response to:

Dr. E. L. Bullen
Director
Schools Facilities Branch
Ministry of Education
620 Superior Street
Victoria, B. C.
V8V 2M4

BIBLIOGRAPHY

Andrews, L. N. Relationship of high school size to school-community relations. Unpublished doctoral dissertation, Stanford University, 1958.

Baird, L. L. Big School, small school: A critical examination of the hypothesis. Journal of Educational Psychology, 1960, 60(4), Pt. 1, 253-260.

Barker, R. G., & Gump, P. V. Big School, small school. Stanford University Press, 1964.

Barry, R. J. Practices of high schools organized on the schools within a school plan. Unpublished doctoral thesis, University of Connecticut, 1967.

Benn, C., & Simon, B. Half-way there. London: McGraw-Hill, 1970.

Berman, P., & McLaughlin, M. W. Federal programs supporting educational change, 1: A model of educational change. Santa Monica, Calif: Rand Corporation, 1974. R-1589/1-HEW.

Berman, P., & McLaughlin, M. W. Implementation of educational innovation. Educational Forum, March, 1976, pp. 345-370.

Bronfenbrenner, U. The origins of alienation. Scientific American, 1974, 231, 53-61.

Bronfenbrenner, U. The experimental ecology of education. Educational Researcher, American Educational Research Association, 1976, 5(9), 5-15.

Bullen, E. L. The house system as an aid to values education. Education Canada, 1980, Summer.

Bullen, E. L. A Study of Some Ecological Effects of Internal Organization in Two Secondary Schools : A House System Compared with a Centralized Organization. Unpublished doctoral thesis, University of Toronto, 1980.

Campbell, W. J. School size: its influence on pupils. Journal of Educational Administration, May 1965, pp. 3-17.

Caverley, E. R. House plan in a high school. The School Executive, November 1959, pp. 54-55.

Chetwynd, H. R. Comprehensive school: the story of Woodberry Down. London: Routledge and Kegan Paul, 1960.

Coleman, J. S., et al. Equality of Educational Opportunity, U.S. Department of Health, Education and Welfare, Office of Education, 1966.

Conant, J. B. The American high school today. New York: McGraw Hill Book Co. Inc., 1959.

Dierenfield, R. B. Personalizing education: the house system in English comprehensive schools. Washington, D.C.: U.S. Dept. of Health, Education and Welfare, National Institute of Education, 1975.

Dierenfield, R. B. Personalizing education: the house system in England. Phi Delta Kappan, May, 1975, pp. 605-7.

Douglas, J.W.B. The Home and the school. MacGibbon & Kee, 1964.

Durkheim, E. The division of labour in society. New York: Free Press, 1933.

Durkheim, E. Suicide. New York: Free Press, 1951.

Elliott, R. D. A study of the effectiveness of school within a school organization in three selected high schools. Unpublished doctoral thesis, Northwestern University, 1968.

Feldt, H. Review of educational research, October, 1961 (4), p. 385.

Fullan, M. Review of research on curriculum implementation. Toronto: Ontario Institute for Studies in Education, 1975.

Fullan, M. Implementation: its nature and determinants. English Speaking Seminar. Towards a New Secondary School - Problems of Implementation, Decentralized Project No. 4, International Management Training for Educational Change (IMTEC), Oslo, 1975.

Garner, J., & Bing, M. Inequalities of teacher-pupil contacts. British Journal of Educational Psychology, 1973 43(5), 234-43.

Gilbert, V. K. House plan for ungraded schools. The Bulletin, Faculty of Education. University of Toronto, February, 1970.

Gilbert, V. K. Housemasters and chairmen: A different division of administrative duties in a secondary school. Comment on Education, February, 1973.

Gold, A. The resurgence of the small school in the city. Phi Delta Kappan, January, 1975, pp. 313-315.

Gray, S. C. A study of the relationship between size and a number of qualitative and quantitative factors of education in four sizes of schools in Iowa. (Doctoral thesis, Iowa State University, 1962.) Dissertation Abstracts, 1962, 34(3), 2631.

Greenfield, T. B. Administration and systems analysis. Canadian Administrator. Apr. 1964 (3), pp. 25-30.

Greenfield, T. B. Organizations as social inventions: rethinking assumptions about change. The Journal of Applied Behavioural Science, (1973 9(5), 551-574.

Greenfield, T. B. Theory in the study of organizations and administrative structures: a new perspective. Paper presented to the Third International Intervisitation Programme on Educational Administration, Bristol, England, July, 1974.

Greenfield, T. B. Organization theory as ideology. Paper presented to the American Education Research Association in a symposium entitled Contemporary Theory Development and Educational Administration Research, Issues and Problems. New York, April 5, 1977.

Halsall, E. The Comprehensive School. Oxford: Pergamon Press, 1973.

Harmon, L. R. High school background of science doctorates. Science, March, 1961, pp. 679-88.

Henson, O. M. The schools within a school program at Topeka West High School. Paper presented to National Association of Secondary Principals, Las Vegas, Negada, February, 1975.

Hodgson, J. H. The Schools within a school plan. A report of a Type C project. Columbia University Teachers College, New York 1958.

Hoyt, D. Size of high school and college. Personnel and Guidance Journal, April 1959(8), pp. 569-73.

Jackson, B. Streaming: an education system in miniature. Routledge & Kegan Paul, 1564.

King, A.J.C., & Warren, W.K. Five house systems. An evaluation study. Research report on implications of innovative practices in the organization of secondary schools, Ontario Ministry of Education, January, 1974a.

King, A.J.C., & Warren, W. K. House systems: problems and perspectives. Orbit, 1974b.

Kleinert, E.J. Effects of high school size on student activity participation. National Association of Secondary School Principal Bulletin, March, 1969 (335), pp. 34-46.

Leithwood, K.A., et al. Planning curriculum change: a model and case study. Toronto: Ontario Institute for Studies in Education, 1976.

Monahan, W.W. Teachers knowledge of students related to urban high school size. Unpublished doctoral dissertation, University of California, Berkeley, 1965.

Monks, T.G. Comprehensive education in England and Wales, a survey of schools and their organization. National Foundation of Educational Research in England and Wales, 1968.

Monks, T.G. Comprehensive education in action. National Foundation of Educational Research in England and Wales, 1970.

Murray, H.A. Explorations in personality. New York: Oxford University Press, 1938.

Organization for Economic Co-operation and Development (O.E.C.D.), External examiner's report. Abridged version printed by The Ontario Association for Adult Education, Toronto, 1975.

Ovaitt, S.W. A study of the optimum size of the high school. Doctoral thesis, Michigan State University, Lansing, 1966.

Pedley, R. The comprehensive school. Penguin, 1963.

Plath, K.R. Schools within schools. New York: Columbia University Teachers' College, 1965.

Pounds, R.L., & Pounds, R. The use of the house system in comprehensive schools in England and Wales. University of Cincinnati, A study sponsored by the U.S. Office of Education (D.H.E.W.), Washington, D.C., 1968.

Ramsey, R.D., Henson, O.M. & Hula, H.L. The schools within-a school program: a modern approach to secondary instruction and guidance. New York: Parker Publishing Co., 1967.

Roberts, M. Wake up Ontario. The Bulletin, University of Toronto, Faculty of Education, October 1971, pp. 197-99.

Sarason, S.B. The psychological sense of community: prospects for a community psychology. San Francisco: Jossey-Bass Publishers, 1974.

Seckington, R. Schools within schools. Forum for the discussion of new trends in education, Summer 1975, 17(4).

Smith, C.B. A study of the optimum size of secondary school. Doctoral thesis, Ohio State University. Dissertation Abstracts, 1961, 21(8), 2181-2.

Tonnies, F. Community and society. Michigan State University Press, 1967.

Turner, C.C., & Thrasher, J.M. School size does make a difference. Institute for Educational Management, San Diego, Calif., 1972.

Wicker, A.W. Undermanning, performance, and students' subjective experiences in behaviour settings in large and small high schools. Journal of Personality and Social Psychology, 1968 10(3), 255,261.

Wicker, A.W. Cognitive complexity, school size, and participation in school behaviour settings: A test of the frequency of inter-action hypothesis. Journal of Educational Psychology, 60(3), 200-203.

Wicker, A.W. Processes which mediate behaviour-environment congruence. Behavioural Science, 1972, 17, 265,277.

Wicker, A.W. Undermanning theory and research, Representative Research in Social Psychology, 1973, 4, 185-206.

Wicker, A.W. McGroth, J.E., & Armstrong, G.E. Organization of size and behaviour setting capacity as determinants of member participation. Behavioural Science, 1972, 17, 499-513.

Wicker, A.W. & Kirmeyer, S. From church to laboratory to national park: A program of research on excess and insufficient populations in behaviour settings. Paper prepared for a conference Experiencing the Environment, sponsored by Clark University, January, 1975.

Willems, E.P. Participation in behaviour settings in relation to three variables: size of behaviour settings, marginality of persons, and sensitivity of audiences. Unpublished doctoral thesis, University of Kansas, 1965.

Willems, E.P. Sense of obligation to high school activities as related to school size and marginality of student. Child Development, 1968, 38, 1246-2460.

Wynne, E. Adolescent alienation and youth policy. Teachers' College Record, September 1976, (1), pp. 23-40.

York, W.J. The schools within a school: A study of selected secondary schools which embody this plan of organization. Unpublished Type C. Project. Columbia University Teachers' College, New York, 1958.